

COMBINATION FOOT MEMBER

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a foot member and, more particularly, to a combination foot member, which is practical for use to support the mainframe of an informative apparatus, for example, a computer system in vertical.

2. Description of Related Art

When informative apparatus are used in a house, the positioning of the mainframe of each informative apparatus has a great concern with the utilization of house space. For example, the mainframe of an early designed personal computer has a flat rectangular shape, and is to be positioned on the floor or a flat surface in horizontal. This horizontal positioning requires much installation space. Therefore, vertical computers are commonly used at the present time to replace early designed horizontal computers. When a vertical computer is used, it occupies less floor or table space.

When setting the mainframe of a personal computer in vertical, the center of gravity of the mainframe is shifted upwards, and the mainframe may fall to be floor easily when vibrated or hit by an external body. In order to support the mainframe of a personal computer on the floor in a vertical position stably, foot members may be used. FIG. 1 shows two foot members **92** put beneath the mainframe **91** of a vertical computer. As illustrated in FIG. 2, the foot member **92** is comprised of two parts coupled together and

slidable relative to each other. Because this design of foot member has no stop means to stop disconnection of the parts from each other, the parts may be forced away from each other accidentally when the user adjusting the pitch, thereby causing the mainframe 91 to fall to the floor or to injure the user's body.

Therefore, it is desirable to provide a combination foot member that eliminates the aforesaid problem.

SUMMARY OF THE INVENTION

It is the main object of the present invention to provide a combination foot member, which has stop means that stops falling of the parts accidentally, preventing damage to the hardware or human body.

To achieve this and other objects of the present invention, the combination foot member comprises a first part and a second part coupled to each other. The first part and the second part each are comprised of a base and a sideboard. The base comprises a top wall, a first sidewall, a second sidewall opposite to the first sidewall, a bottom receiving chamber defined by the top wall, the first sidewall and the second sidewall, and a forwardly extended guide board suspended in the bottom receiving chamber near the first sidewall below the elevation of the top wall. The top wall has a front side terminating in a butt end near the second sidewall and a rear side provided with a coupling structure. The guide board has a L-shaped stop member downwardly extended from the front side thereof and an opening faced to the first sidewall. The second sidewall has a horizontal guide rail disposed at the inner surface and terminating in a downwardly extended

stop flange. The sideboard is pivoted to the coupling structure of the base, and turnable to a vertical position perpendicular to the base. When coupling the first part and the second part to each other, the guide board of the base of one part of the foot member is respectively inserted slantwise into the bottom receiving chamber of the base of the other part of the foot member to force the respective L-shaped stop member to overstride the corresponding stop flange, and then the guide board of the base of one part of the foot member is respectively inserted straightly into the bottom receiving chamber of the base of the other part of the foot member for enabling the respective L-shaped stop member to slide forward along the corresponding horizontal guide rail. When the two parts of the foot member are assembled for use to support the mainframe of a computer in vertical, the user can move the parts of the foot member relative to each other to adjust the pitch between the sideboards. In case an excessive force is applied to the parts of the foot member to force the parts apart during pitch adjustment, the respective L-shaped stop members will be slid backward along the corresponding horizontal guide rail and stopped at the corresponding stop flanges, preventing falling of the parts from each other accidentally.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic applied view of combination foot members according to the prior art.

FIG. 2 is an exploded view of a combination foot member according to the prior art.

FIG. 3 is an oblique top exploded view of a combination foot member according to the present invention.

FIG. 4 is an oblique bottom view of FIG. 3.

FIG. 5 is an oblique bottom view of the present invention, showing
5 the two parts of the combination foot member coupled together.

FIG. 6 is a bottom plain view of FIG. 5.

FIG. 7 is a schematic drawing of the present invention, showing the two parts of the combination foot member adjusted relative to each other.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

10 Referring to FIGS. 3 and 4, a combination foot member in accordance with the present invention is shown comprised of a first part 1 and a second part 2. The first and second parts 1 and 2 each comprise a base 10 or 20 and a sideboard 16 or 26.

The base 10 or 20 comprises a top wall 11 or 21, a first sidewall 12
15 or 22, a second sidewall 13 or 23 opposite to the first sidewall 12 or 22, and a bottom receiving chamber 14 or 24 defined by the top wall 11 or 21, the first sidewall 12 or 22, and the second sidewall 13 or 23. The front side of the top wall 11 or 21 is a butt end 111 or 211 near the second sidewall 13 or 23. The rear side of the top wall 11 or 21 is provided with a coupling
20 structure 112 or 212. A forwardly extended guide board 15 or 25 is suspended in the bottom receiving chamber 14 or 24 near the first sidewall 12 or 22 below the elevation of the top wall 11 or 21. The guide board 15 or 25 has a L-shaped stop member 151 or 251 downwardly extended from the front side thereof and an opening 150 faced to the first sidewall 12 or 22.

The second sidewall **13** or **23** has a horizontal guide rail **132** or **232** disposed at an inner surface and terminating in a downwardly extended stop flange **131** or **231**.

5 The top wall **11** or **21** has a bottom surface **113** or **213**, and a plurality of grooves **114** or **214** at the bottom surface **113** or **213**. The guide board **15** or **25** further has a top surface **152** or **252**, a tooth **153** or **253** raised from the top surface **152** or **252**, and a beveled front guide face **154** or **254**. The L-shaped stop member **151** or **251** has a raised guide portion **155**.

10 The sideboard **16** or **26** is pivoted to the coupling structure **112** or **212** of the base **10** or **20**, and can be turned to a vertical position perpendicular to the base **10** or **20**.

Referring also to FIGS. 5~7, when wishing to use the combination foot member to support the mainframe of a computer in vertical, the first part **1** and the second part **2** must be assembled at first. At this time, attach
15 the beveled front guide faces **154** and **254** of the guide boards **15** and **25** to each other, and then insert the guide boards **15** and **25** slantwise into the corresponding bottom receiving chambers **14** and **24** to force the L-shaped stop members **151** and **251** to overstride the corresponding stop flanges **131** and **231**, and then for enabling the guide boards **15** and **25** to be respectively
20 inserted straightly into the corresponding bottom receiving chambers **14** and **24**. On the contrary, the bottom receiving chambers **14** and **24** are respectively faced to the corresponding guide boards **15** and **25** to slide L-shaped stop members **151** and **251** of the respective parts **1** and **2** forward along the corresponding horizontal guide rails **132** and **232**. At this time,

The raised guide portions **155** of the respective L-shaped stop members **151** and **251** are directly slid on the corresponding horizontal guide rails **132** and **232** (see FIG. 3). Thus, surface contact is changed to line contact, reducing friction resistance between the parts **1** and **2**.

5 When the two parts **1** and **2** are assembled for use to support the mainframe of the computer in vertical, the user can move the parts **1** and **2** relative to each other to adjust the pitch between the sideboards **16** and **26**. At this time, the L-shaped stop members **151** and **251** are respectively slid on the corresponding horizontal guide rails **132** and **232** to shift the
10 engagement between the teeth **153** and **253** and the corresponding grooves **114** and **214**. When adjusted, the combination foot member is put beneath the mainframe of the computer, keeping the sideboards **16** and **26** clamped on the two opposite side panels of the mainframe of the computer. According to this embodiment, the top wall **11** or **21** of the base **10** or **20** is
15 covered with an anti-skid pad **17** or **27** that increases friction resistance between the combination foot member and the mainframe of the computer.

 In case an excessive force is applied to the parts **1** and **2** to force the parts **1** and **2** apart during pitch adjustment, at this time, the L-shaped stop members **151** and **251** will be slid backward along the corresponding
20 horizontal guide rails **132** and **232** and stopped at the corresponding stop flanges **131** and **231**, preventing falling of the parts **1** and **2** from each other accidentally.

 Although the present invention has been explained in relation to its preferred embodiment, it is to be understood that many other possible

modifications and variations can be made without departing from the spirit and scope of the invention as hereinafter claimed.